

SYSTEM AND METHOD FOR EFFECTIVELY PROVIDING USER INFORMATION FROM A USER DEVICE

CROSS-REFERENCE TO RELATED APPLICATIONS

5 This application relates to, and claims priority in, U.S. Provisional Patent Application Serial No. 60/250,944, entitled "Infrastructure To Enhance User Experience At Live Events," filed on December 1, 2000, and to U.S. Provisional Patent Application Serial No. 60/250,947, entitled "Video Streaming To Personal Wireless Devices For Live Event Enhancement," filed
10 on December 1, 2000. The foregoing related applications are commonly assigned, and are hereby incorporated by reference.

BACKGROUND SECTION

1. Field of the Invention

This invention relates generally to techniques for managing information, and relates more particularly to a system and method for effectively providing user information from a user device.

2. Description of the Background Art

Implementing effective methods for effectively providing relevant information is a significant consideration for designers and manufacturers of
25 contemporary electronic devices. However, providing information with electronic devices may create substantial challenges for system designers. For example, enhanced demands for increased device functionality and performance may require more system processing power and require additional hardware resources. An increase in processing or hardware
30 requirements may also result in a corresponding detrimental economic impact due to increased production costs and operational inefficiencies.

Furthermore, enhanced device capability to perform various advanced operations may provide additional benefits to a system user, but may also place increased demands on the control and management of various device components. For example, an enhanced electronic device that effectively
5 accesses, stores, displays, and manipulates digital image data for a system user may benefit from an efficient implementation because of the large amount and complexity of the digital data involved.

Due to growing demands on system resources and substantially increasing data magnitudes, it is apparent that developing new techniques for
10 providing relevant information is a matter of concern for related electronic technologies. Therefore, for all the foregoing reasons, developing effective systems for providing information remains a significant consideration for designers, manufacturers, and users of contemporary electronic devices.

SUMMARY

In accordance with the present invention, a system and method are disclosed for effectively providing user information from a user device. In one
5 embodiment, an electronic system may preferably include, but is not limited to, a user device, a base station, a local area network (LAN), an event server, and an Internet network. The user device may preferably be implemented as any appropriate type of electronic device. For example, the user device may be configured as a portable wireless telecommunications device.

10 In certain embodiments, the user device may preferably communicate bidirectionally with the base station which may include a radio-frequency transceiver system to transmit and receive wireless communications to and from the user device. The base station may preferably be coupled to the LAN which may preferably be implemented at a particular event location. For
15 example, the LAN and the base station may be located at a movie theater, a sporting venue, or a sports bar. In certain embodiments, the electronic system may include multiple base stations coupled to one or more different LANs.

In one embodiment, the LAN may preferably communicate directly with
20 the event server which may preferably include various types of community services or event information related to a particular user community or event location. In another embodiment, the LAN may preferably include a computer device for connecting to the Internet which may then responsively communicate with the event server. In accordance with the present
25 invention, the user device may thus access relevant community services and information from the event server via the LAN and the base station. In certain circumstances, the user device may also communicate directly with the Internet to access the event server.

During the utilization of the foregoing embodiment, a system user may
30 preferably utilize a profile creator from a profile module of the user device to advantageously create one or more profiles related to the system user. The foregoing profiles may include, but are not limited to a real user profile, a

device profile, a network profile, a personality profile, and a character profile. The user device may preferably store the created profiles locally into a device memory. The system user may also utilize the profile creator to subsequently edit or modify any existing profiles.

5 Next, the system user may preferably utilize a login/configuration module of the user device to perform a login procedure for gaining restricted access to the event server. During the foregoing login procedure, the user device may preferably provide an appropriate device profile to the event server for identifying various specific configurations and functionalities of the user
10 device. In certain embodiments, the user device may also provide an appropriate network profile to the event server. In response, the event server may preferably optimize community services and community content that is directed towards the particular system user and user device.

Following the foregoing login procedure, the system user may utilize
15 the user device to select access to a particular community service on the event server. In accordance with the present invention, the community service may be related to a specified event location or may be directed towards a particular user community. The system user may then preferably determine whether to submit a personality profile or a character profile from
20 the user device to the event server.

If the user device contains no personality profiles or character profiles that are appropriate for the selected community service on the event server, then the system user may utilize the user device to create an appropriate personality profile or character profile, or may alternately select a different
25 service on the event server.

The system user may advantageously utilize a profile selector from the user device to select and send an appropriate personality profile or character profile to the event server. If the system user selects and sends an appropriate personality profile or character profile to the event server, then
30 the system user may effectively utilize the selected community service on the event server in conjunction with a related event location or user community.

Alternately, the system user may create and send a profiles request to the event server to request various types of users information including information from various selectable profiles of other system users in the electronic system. The event server may responsively provide the requested
5 users information and other related information from a community database or other appropriate source to the user device.

The system user may then advantageously utilize a profile analyzer from the user device to perform a profile information analysis procedure upon the requested users information. The system user may then make an
10 informed decision to select and send an appropriate personality profile or character profile to the event server. Alternately, the system user may utilize the profile creator to create a new personality profile or character profile, or may edit an existing personality profile or character profile for transmission to the event server. The present invention thus provides an improved a
15 system and method for effectively providing user information from a user device.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a block diagram of an electronic system, in accordance with one embodiment of the present invention;

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FIG. 2 is a block diagram for one embodiment of the user device of FIG. 1, in accordance with the present invention;

FIG. 3 is a block diagram for one embodiment of the device memory of FIG. 2, in accordance with the present invention;

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FIG. 4 is a block diagram for one embodiment of the user data of FIG. 3, in accordance with the present invention;

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FIG. 5 is a block diagram for one embodiment of the event server of FIG. 1, in accordance with the present invention;

FIG. 6 is a block diagram for one embodiment of the server memory of FIG. 5, in accordance with the present invention;

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FIG. 7 is a block diagram for one embodiment of the users information of FIG. 6, in accordance with the present invention;

FIG. 8 is a block diagram for one embodiment of the profile module of FIG. 3, in accordance with the present invention;

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FIG. 9 is a flowchart of method steps for utilizing a user device to access an event server, in accordance with one embodiment of the present invention;

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FIG. 10 is a block diagram for one embodiment of the profiles of FIG. 4,
in accordance with the present invention;

FIG.11 is a flowchart of method steps for effectively providing user
5 information from a user device, in accordance with one embodiment of the
present invention.

FIG. 10 is a block diagram for one embodiment of the profiles of FIG. 4,
in accordance with the present invention;

DETAILED DESCRIPTION

The present invention relates to an improvement in information management techniques. The following description is presented to enable one of ordinary skill in the art to make and use the invention and is provided in the context of a patent application and its requirements. Various modifications to the disclosed embodiments will be readily apparent to those skilled in the art, and the generic principles herein may be applied to other embodiments. Thus, the present invention is not intended to be limited to the embodiments shown, but is to be accorded the widest scope consistent with the principles and features described herein.

The present invention comprises a system and method for effectively providing user information from a user device, and may preferably include an event server that provides restricted access to various types of event content information and services related to a particular event or user community. A wireless portable user device may provide an access code to the event server at a particular event location through a wireless base station that is coupled to a local area network.

A system user may thereby utilize the user device to access the event server for downloading appropriate event content information or other types of community services related to a particular user community. In accordance with the present invention, the user device may advantageously provide one or more different types of profiles and other types of user feedback to the event server to thereby enable the event server to effectively associate the user device with appropriate event content or other types of community services related to a particular user community.

Referring now to FIG. 1, a block diagram of an electronic system 110 is shown, in accordance with one embodiment of the present invention. In the FIG. 1 embodiment, electronic system 110 may preferably include, but is not limited to, a user device 114, a base station 122, a local area network (LAN)

130, an event server 138, an Internet network 150, and a cellular network 166. In alternate embodiments, electronic system 110 may readily be implemented using various components and configurations in addition to, or instead of, those discussed in conjunction with the FIG. 1 embodiment. For example, in certain embodiments, electronic system 110 may readily be configured to include multiple base stations 122 and/or multiple event servers 138.

In the FIG. 1 embodiment, user device 114 may preferably be implemented as any appropriate type of electronic device. For example, user device 114 may be configured as a portable wireless telecommunications device. The configuration and functionality of user device 114 is further discussed below in conjunction with FIGS. 2 and 3.

In the FIG. 1 embodiment, user device 114 may preferably communicate bidirectionally with base station 122 via path 118. Base station 122 may preferably be implemented in any appropriate manner. For example, base station 122 may include a radio-frequency transceiver system to transmit and receive wireless communications to and from user device 114. Base station 122 may preferably be coupled to LAN 130 via path 126.

In the FIG. 1 embodiment, LAN 130 may preferably be implemented at a particular event location. For example, LAN 130 and base station 122 may be located at a movie theater, a sporting venue, or a sports bar. In certain embodiments, electronic system 110 may include multiple base stations 122 coupled to one or more different LANs 130. For example, a movie theater may include an entrance LAN 130 outside the theater, a lobby LAN 130 in the theater lobby, and a screening room LAN 130 for the area in which movies are displayed.

In the FIG. 1 embodiment, LAN 130 may preferably communicate directly with event server 138 via path 134. Event server 138 may preferably include various types of event services or event information related to a particular event or event location. In certain embodiments, LAN 130 may preferably include a computer device (not shown) for connecting to Internet 150 via path 146. Internet 150 may then responsively communicate with

event server 138 via path 154. The implementation and functionality of event server 138 is further discussed below in conjunction with FIGS. 5 and 6.

In accordance with the present invention, user device 114 may thus access relevant event information from event server via base station 122 and LAN 130. In certain circumstances, user device 114 may also communicate directly with Internet 150 via path 158 to access event server 138. For example, user device 114 may be utilized to access event server 138 before or after attending a particular event location. In addition, user device 114 may also communicate with cellular network 166 via path 162 to thereby access Internet 150 and event server 138 via path 170.

Referring now to FIG. 2, a block diagram for one embodiment of the FIG. 1 user device 114 is shown, in accordance with the present invention. In the FIG. 2 embodiment, user device 114 preferably includes, but is not limited to, a central processing unit (CPU) 212, a user interface 214, a device memory 216, a display 218, one or more input/output interface(s) (I/O interface(s)) 220, and a sound module 224. The foregoing components of user device 114 may preferably be coupled to, and communicate through, a device bus 228.

In alternate embodiments, user device 114 may readily be implemented using various components and configurations in addition to, or instead of, those discussed in conjunction with the FIG. 2 embodiment. In addition, user device 114 may be implemented as any desired type of electronic device. For example, in certain embodiments, user device 114 may include a personal digital assistant (PDA) device, a cellular telephone device, a computer device, or any portable electronic device that supports wireless electronic communications.

In the FIG. 2 embodiment, CPU 212 may be implemented to include any appropriate and compatible microprocessor device that preferably executes software instructions to thereby control and manage the operation of user device 114. The FIG. 2 display 218 preferably may include any

effective type of display technology including a cathode-ray-tube monitor or a liquid-crystal display device.

In the FIG. 2 embodiment, I/O interface(s) 220 preferably may include one or more input and/or output interfaces to receive and/or transmit any required types of information by user device 114. For example, in the FIG. 2 embodiment, user device 114 may utilize I/O interface(s) 220 to bi-directionally communicate with various types of wireless communications devices through a wireless communications interface. The wireless communications interface may preferably include any effective means to remotely communicate with an external entity such as LAN 130 (FIG. 1) or Internet 150, to thereby exchange relevant information for successful operation of user device 114.

In addition, user device 114 may utilize the wireless communications interface to download various types of content information and other data from a wireless source such as base station 122 (FIG. 1). The foregoing wireless communications interface may be implemented using any appropriate wireless technology, including radio-frequency transmission, infrared transmission, or microwave transmission.

In the FIG. 2 embodiment, user device 114 may also utilize I/O interface(s) 220 to bi-directionally communicate with one or more distributed computer networks. For example, user device 114 may advantageously communicate with the Internet, a local area network, or other distributed computer networks to upload or download various types of information.

User device 114 may also utilize I/O interface(s) 220 to bi-directionally communicate with a host computer. For example, user device 114 may communicate with a personal computer device over a Universal Serial Bus (USB) to effectively upload or download various types of information. Similarly, in the FIG. 2 embodiment, user device 114 may utilize I/O interface(s) 220 to bi-directionally communicate with a cellular telephone network to preferably transfer any desired information.

In the FIG. 2 embodiment, one or more removable storage media interfaces may preferably be utilized to receive or send any desired data for user device 114. For example, various types of removable storage media may provide means for bi-directional transfers of content information and other data between user device 114 and other appropriate entities. In certain embodiments, the removable storage media may include memory devices to support any desired type or combination of removable storage media. For example, the removable storage media may support memory sticks, flash memory devices, compact disks, mini-disks, or floppy disks.

In the FIG. 2 embodiment, device memory 216 may be implemented to include any combination of desired storage devices, including, but not limited to, read-only memory (ROM), random-access memory (RAM), and various types of non-volatile memory, such as floppy disks or hard disks. The contents and functionality of device memory 216 are further discussed below in conjunction with FIG. 3.

Sound module 224 preferably may include appropriate interfaces to support audio functionality for user device 114. For example, in certain embodiments, sound module 224 may include, but is not limited to, an audio processing module, a power amplifier, one or more speaker devices, and a microphone device.

In the FIG. 2 embodiment, user interface 214 may preferably include any effective means to allow a system user to communicate with user device 114. For example, user interface 214 may support a keyboard device, a wireless remote control device, a speech-recognition module with corresponding microphone, a graphical user interface with touch-screen capability, or a selection button array mounted externally on user device 114. The functionality and utilization of user device 114 is further discussed below in conjunction with FIG. 9.

Referring now to FIG. 3, a block diagram for one embodiment of the FIG. 2 device memory 216 is shown, in accordance with the present

invention. In the FIG. 3 embodiment, device memory 216 preferably includes, but is not limited to, application software 312, an operating system 314, device content information 316, user data 318, a login/configuration module 320, a download module 322, a profile module 324, an access rights module 326, streaming services 328, a metadata module 330, and a community module 332. In alternate embodiments, device memory 216 may readily include various other components in addition to, or instead of, those components discussed in conjunction with the FIG. 3 embodiment.

In the FIG. 3 embodiment, application software 312 may include program instructions that are preferably executed by CPU 212 (FIG. 2) to perform various functions and operations for user device 114. The particular nature and functionality of application software 312 preferably varies depending upon factors such as the specific type and particular use of the corresponding user device 114. In the FIG. 3 embodiment, operating system 314 preferably controls and coordinates low-level functionality of user device 114. Device content information 316 preferably includes various types of data that is preferably stored in device memory 216. Device content information 316 preferably may include various types of image data or other types of information. User data 318 may preferably include any information pertaining to the utilization of user device 114 by one or more system users. User data 318 is further discussed below in conjunction with FIG. 4.

In the FIG. 3 embodiment, login/configuration module 320 may preferably initiate bi-directional communications between user device 114 and another entity in electronic system 110. For example, login/configuration module 320 may perform a login procedure to initially connect user device 114 to event server 138 via LAN 130 or via Internet 150. In the FIG. 3 embodiment, login/configuration module 320 may preferably initially provide an access code and other user data 318 to event server 138 which may responsively send appropriate configuration information to user device 114. Login/configuration module 320 may then perform a configuration procedure by utilizing the downloaded configuration information from event server 138 to effectively configure user device 114 in

an optimal manner for accessing event server 138 in conjunction with a particular event at a corresponding event location.

In the FIG. 3 embodiment, download module 324 may preferably download and install appropriate application software 312 for use at a particular event or event location. Download module 324 may also initially determine whether a version of the application software 312 already exists on user device 114, and may then perform an update procedure if the current version of application software 312 is outdated.

In the FIG. 3 embodiment, profile module 324 may preferably create, edit, analyze, select, and otherwise manage one or more profiles that may be transmitted to event server 138 during a login procedure. Profile module 324 may also maintain a list of profile recipients that have previously received one or more different profiles from profile module 324. Profiles are further discussed below in conjunction with FIGS. 4 and 10. The configuration and operation of profile module 324 is further discussed below in conjunction with FIG. 8.

In the FIG. 3 embodiment, access rights module 326 may preferably communicate with event server 138 regarding access rights of user device 114. For example, access rights module 326 may preferably receive one or more time-stamped access capabilities for various services on event server 138. Access rights module 326 may also receive an encryption key for decrypting content information that has been encrypted by event server 138 prior to transmission to user device 114. Access rights are further discussed below in conjunction with FIGS. 4 and 8.

In the FIG. 3 embodiment, streaming services 328 may preferably support receiving, processing, and displaying various types of streaming content (for example, audio or video content) from event server 138. Similarly, metadata module 330 may preferably support receiving, processing, and displaying various types of metadata information from event server 138. For example, metadata module 330 may manage and provide various types of ancillary information that is related to a particular event, such as event participant statistics or other background information.

In the FIG. 3 embodiment, community module 332 may preferably be utilized by user device 114 to communicate with a community manager and a community database on event server 138 regarding various community services provided for one or more user communities. A user community may include any group of system users that share one or more common characteristics or interests. For example, a user community may include a group of system users that frequently attend events at a particular event location. In accordance with the present invention, event server 138 may preferably create a user community based upon various profiles that are provided to event server 138 from various user devices 114 in electronic system 110. The foregoing community manager and community database are further discussed below in conjunction with FIG. 6.

Referring now to FIG. 4, a block diagram for one embodiment of the FIG. 3 user data 318 is shown, in accordance with the present invention. In the FIG. 4 embodiment, user data 318 may include, but is not limited to, one or more profiles 412, location information 416, and access rights 420. In alternate embodiments, user data 318 may readily include various other components in addition to, or instead of, those components discussed in conjunction with the FIG. 4 embodiment.

In the FIG. 4 embodiment, profiles 412 may include any information related to a system user of user device 114. In certain embodiments, profiles 412 may include a basic device profile that only describes basic functionality of user device 114. The foregoing device profile may typically be provided to event server 138 to gain access by a single user device 114 to basic services and content information.

In the FIG. 4 embodiment, profiles 412 may also include one or more authentic profiles that selectively describe various personal characteristics and usage traits of a particular system user of user device 114. In accordance with the present invention, profiles 412 may also include one or more virtual profiles that selectively describe various personal characteristics and usage traits of a fictitious system user of user device 114. In the FIG. 4

embodiment, profiles 412 may also include one or more location profiles that describe a system configuration of a particular location (such as a system user's home network) to enable event server 138 to provide appropriate services and content information based upon a particular location profile.

5 In the FIG. 4 embodiment, location information 416 may preferably include any relevant information pertaining to one or more particular event locations. Location information 416 may be obtained in any suitable manner. For example, location information 416 may be provided by a system user by utilizing user interface 214 (FIG. 2). In accordance with the present
10 invention, location information 416 may be provided to event server 138 in order to facilitate access to appropriate services and content information related to a corresponding event location.

In the FIG. 4 embodiment, access rights 420 may include one or more access codes for logging onto event server 138. Access codes may be
15 obtained in any effective manner. For example, a system user may obtain an access code when purchasing admission to a particular event, and may responsively enter the access code using user interface 214. Alternately, an access code may be electronically transferred to user device 114. For
20 example, a wireless "beaming" technique may utilize infrared or radio-frequency transmission to provide an access code to user device 114. Each of the foregoing access codes may preferably be associated with one or more time-stamped access capabilities for accessing corresponding services and content information from event server 138.

25 Referring now to FIG. 5, a block diagram for one embodiment of the FIG. 1 event server 138 is shown, in accordance with the present invention. In the FIG. 5 embodiment, event server 138 preferably includes, but is not limited to, a central processing unit (CPU) 512, a user interface 514, a server memory 516, a display 518, and one or more input/output interface(s) (I/O
30 interface(s)) 520. The foregoing components of event server 138 may preferably be coupled to, and communicate through, a server bus 528.

In alternate embodiments, event server 138 may readily be implemented using various components and configurations in addition to, or instead of, those discussed in conjunction with the FIG. 5 embodiment. In the FIG. 5 embodiment, CPU 512 may be implemented to include any
5 appropriate and compatible microprocessor device that preferably executes software instructions to thereby control and manage the operation of event server 138. The FIG. 5 display 518 preferably may include any effective type of display technology including a cathode-ray-tube monitor or a liquid-crystal display device.

10 In the FIG. 5 embodiment, I/O interface(s) 520 preferably may include one or more input and/or output interfaces to receive and/or transmit any required types of information by event server 138. For example, in the FIG. 5 embodiment, event server 138 may utilize I/O interface(s) 520 to bi-directionally communicate with various types of
15 wireless communications devices through a wireless communications interface. The wireless communications interface may preferably include any effective means to remotely communicate with an external entity such as LAN 130 (FIG. 1) or Internet 150, to thereby exchange relevant information for successful operation of event server 138.

20 In addition, event server 138 may utilize the wireless communications interface to download various types of information and other data from a wireless source such as user device 114 (FIG. 1). The foregoing wireless communications interface may be implemented using any appropriate wireless technology, including radio-frequency
25 transmission, infra-red transmission, or micro-wave transmission.

In the FIG. 5 embodiment, event server 138 may also utilize I/O interface(s) 520 to bi-directionally communicate with one or more distributed computer networks. For example, event server 138 may advantageously communicate with the Internet, a local area network such as LAN 130, or
30 other distributed computer networks to upload or download various types of information.

In the FIG. 5 embodiment, server memory 516 may be implemented to include any combination of desired storage devices, including, but not limited to, read-only memory (ROM), random-access memory (RAM), and various types of non-volatile memory, such as floppy disks or hard disks. The contents and functionality of server memory 516 are further discussed below in conjunction with FIG. 6.

In the FIG. 5 embodiment, user interface 514 may preferably include any effective means to allow a system user to communicate with event server 138. For example, user interface 514 may support a keyboard device, a display device, and/or other devices. The functionality and utilization of event server 138 is further discussed below in conjunction with FIG. 9.

Referring now to FIG. 6, a block diagram for one embodiment of the FIG. 5 server memory 516 is shown, in accordance with the present invention. In the FIG. 6 embodiment, server memory 516 preferably includes, but is not limited to, application software 612, an operating system 614, server content information 616, users information 618, a login/configuration manager 620, an upload module 622, a profile manager 624, an access rights manager 626, a streaming manager 628, a metadata manager 630, a community manager 632, and a community database 634. In alternate embodiments, server memory 516 may readily include various other components in addition to, or instead of, those components discussed in conjunction with the FIG. 6 embodiment.

In the FIG. 6 embodiment, application software 612 may include program instructions that are preferably executed by CPU 512 (FIG. 5) to perform various functions and operations for event server 138. The particular nature and functionality of application software 612 preferably varies depending upon factors such as the specific type and particular use of the corresponding event server 138. In the FIG. 6 embodiment, operating system 614 preferably controls and coordinates low-level functionality of event server 138. Server content information 616 preferably includes various types of data and services that are preferably stored in server memory 516.

Users information 618 may preferably include information pertaining to various systems users. Users information 618 is further discussed below in conjunction with FIG. 7.

In the FIG. 6 embodiment, login/configuration manager 620 may preferably manage bi-directional communications between event server 138 and another entity in electronic system 110. For example, login/configuration manager 620 may participate in a login procedure to initially connect a user device 114 to event server 138 via LAN 130 or via Internet 150 (see FIG. 1). In the FIG. 6 embodiment, login/configuration manager 620 may preferably initially receive an access code and other user data 318 from a user device 114. Login/configuration manager 620 may then preferably participate in a configuration procedure by responsively providing appropriate configuration information to the particular user device 114. The user device 114 may then utilize the configuration information to effectively configure the user device 114 in an optimal manner for accessing event server 138 in conjunction with a particular event at a corresponding event location.

In the FIG. 6 embodiment, upload module 624 may preferably provide appropriate device application software 312 (FIG. 2) for use at a particular event or event location to user device 114. In the FIG. 6 embodiment, profile manager 624 may preferably manage and utilize one or more profiles 412 that may be transmitted to event server 138 during a login procedure. Profile manager 624 may also maintain a list of one or more location profiles that each correspond to a particular event location. Event server 138 may preferably utilize the location profiles in conjunction with location information 416 (FIG. 4) from a user device 114 to provide appropriate server content information to a user device 114.

In the FIG. 6 embodiment, access rights manager 626 may preferably communicate with user device 114 regarding access rights of a particular system user. For example, access rights manager 626 may preferably provide one or more time-stamped access capabilities to user device 114 for various services on event server 138. Access rights manager 626 may also provide an

encryption key for decrypting content information that has been encrypted by event server 138 prior to transmission to user device 114.

In the FIG. 6 embodiment, streaming manager 628 may preferably support processing and transmitting various types of streaming video information from event server 138. Similarly, metadata manager 630 may preferably support processing and transmitting various types of metadata information from event server 138. For example, metadata manager 630 may manage and provide various types of ancillary information that is related to a particular event, such as event participant statistics or other background information.

In the FIG. 6 embodiment, as discussed above in conjunction with FIG. 3, community manager 632 may preferably be utilized by event server 138 to communicate with community modules 332 from various user devices 114 regarding community services provided by event server 138 for one or more user communities. For example, community manager 632 may create and administer one or more community databases 634 to support one or more corresponding user communities. In addition community manager 632 may support any other appropriate community services. For example, community manager 632 may manage an electronic community bulletin board/message service or an electronic community chat service/real-time discussion forum.

In the FIG. 6 embodiment, a community database 634 may include any desired community information or data relating to a particular user community. The foregoing community information may be provided from user devices 114 as a form of user feedback, or may be obtained from other appropriate sources. In accordance with the present invention, event server 138 may preferably create and manage a user community based upon various profiles that may be provided to event server 138 from various user devices 114 in electronic system 110. Configuration and utilization of profiles are further discussed in greater detail in conjunction with FIGS. 10 and 11.

Referring now to FIG. 7, a block diagram for one embodiment of the FIG. 6 users information 618 is shown, in accordance with the present

invention. In alternate embodiments of the present invention, users information 618 may readily be implemented to include various other configurations, and may also include various items and components that are different from those discussed in conjunction with the FIG. 7 embodiment.

5 In the FIG. 7 embodiment, as discussed above in conjunction with FIG. 6, event server 138 may store various sets of users information 618 that preferably may include individual sets of user data 1 (714(a)) through user data N (714(c)) which each preferably corresponds with a specific system user of a respective user device 114. In the FIG. 7 embodiment, the various
10 system users may be identified as a respective user 1 (712(a)) through user N (712(c)). In the FIG. 7 embodiment, users information 618 may preferably include any type of information or data that may be received from any appropriate information source.

In certain embodiments, each user device 114 in electronic system 110
15 may provide event server 138 with various of types of user data 318 stored in the respective user devices 114 (see FIG. 4). For example, users information 618 may preferably include profiles 412, location information 418, and access rights 420 from sets of user data 318 of the various user devices 114. Event server 138 may then advantageously refer to users information 618 in
20 order to provide appropriate services and content information to the individual user devices 114.

Referring now to FIG. 8, a block diagram for one embodiment of the FIG. 3 profile module 324 of user device 114 is shown, in accordance with
25 the present invention. In the FIG. 8 embodiment, profile module 324 may preferably include, but is not limited to, a profile creator 812, a profile selector 816, and a profile analyzer 820. In alternate embodiments, profile module 324 may readily be implemented using various components and configurations in addition to, or instead of, those discussed in conjunction
30 with the FIG. 8 embodiment.

In the FIG. 8 embodiment, user device 114 may preferably utilize profile creator 812 to create and edit various types of profiles 412 and

related information. In addition, user device 114 may preferably utilize profile selector 816 to choose a particular profile 412 from among several profiles 412 for transmitting to event server 138. In the FIG. 8 embodiment, profile selector 816 may also maintain a listing of various recipients of profiles 412.

User device 114 may also utilize profile analyzer 820 to access and analyze various profiles 412 from other system users in electronic system 110. For example, profile analyzer 820 may create and send a profiles request to event server 138 which may then responsively provide requested system user information and other profile information to the requesting user device 114. A system user may then utilize profile analyzer 820 to view and analyze the requested system user information and other profile information in order to make an informed decision regarding various relevant system user activities from a corresponding user device 114.

Referring now to FIG. 9, a flowchart of method steps for utilizing a user device 114 to access an event server 138 is shown, in accordance with one embodiment of the present invention. The FIG. 9 example is presented for purposes of illustration, and, in alternate embodiments, the present invention may readily utilize various other steps and sequences than those discussed in conjunction with the FIG. 9 embodiment.

In the FIG. 9 embodiment, initially, in step 912, a system user may preferably purchase an admission to a particular event or event location. Then, in step 916 the system user may preferably receive an access code corresponding to the particular event or event location. In step 920, the system user may preferably enter the event location.

Next, in step 924, the system user may preferably determine whether to perform a login procedure with user device 114 to thereby gain access to event server 138. During the login procedure, user device 114 may preferably provide the foregoing access code received in step 916 to event server 138. In

certain embodiments, user device 114 may also provide other user data 318 to event server 138.

In step 928, user device 114 may preferably perform a configuration procedure with configuration information downloaded from event server 138.

5 In addition, when appropriate, user device 114 may also update application software 312 to correspond to a latest software version for the event or event location. Then, in step 932, user device 114 may preferably access and utilize various services and content information from event server 138. In the FIG. 9 embodiment, event server 138 may preferably regulate access to
10 various services and content information based upon time-stamped access capabilities corresponding to the access code provided by user device 114 to event server 138 during the foregoing login procedure. In certain embodiments, a system user may utilize user device 114 to provide various types of user feedback to event server 138 regarding a current event or event
15 location. In addition, a system user may also communicate with event server 138 to perform various event-related activities such as ordering admission tickets or event notifications for future events.

In step 936, the system user may preferably determine whether to perform a logoff procedure with user device 114 to thereby terminate access
20 to event server 138. If the system user determines to perform a logoff procedure, then the FIG. 9 process may preferably return to foregoing step 924 until the system user initiates another login procedure. Alternately, in step 940, event server 138 may periodically determine whether access rights for the user device 114 have expired. In the FIG. 9 embodiment, access
25 rights manager 626 of event server 138 may preferably monitor the time-stamped access capabilities of access rights 420 (FIG. 4) and users information 618 (FIG. 6) to determine whether the access rights of the particular user device 114 have expired. In the FIG. 9 embodiment, when event server 138 determines that the access rights of the particular user
30 device 114 have expired, then the FIG. 9 process may preferably terminate.

Referring now to FIG. 10, a block diagram for one embodiment of the FIG. 4 profiles 412 is shown, in accordance with the present invention. In the FIG. 10 embodiment, profiles 412 may include, but are not limited to, a real profile 1012, one or more device profile(s) 1016, one or more network
5 profile(s) 1020, one or more personality profile(s) 1024, and one or more character profile(s) 1028. In the FIG. 10 embodiment, profiles 412 may preferably be divided into various profile types. For example, each of the FIG. 10 profiles is designated as either a hardware profile type or a profile type. In alternate embodiments, profiles 412 may readily include various components
10 and functionalities in addition to, or instead of, those discussed in conjunction with the FIG. 10 embodiment.

In the FIG. 10 embodiment, real profile 1012 may preferably include any authentic information regarding a system user of user device 114. For example, real profile 1012 may include a user name, a user mailing address,
15 a user identification number, a user credit card number, and/or a user email address. Because of the sensitive nature of information in real profile 1012, user device 114 may preferably provide certain security safeguards to prevent inappropriate access to real profile 1012. For example, user device 114 may perform an encryption procedure before transmitting real profile 1012 to an
20 external entity such as event server 138.

In the FIG. 10 embodiment, device profile(s) 1016 may include one or more sets of information regarding the configuration and functional capabilities of user device 114 or other electronic devices used by a system user. For example, a device profile 1016 may include communication
25 protocols, hardware and software configurations, memory types and capacities, and data transfer speeds and formats for user device 114 or other electronic devices. User device 114 may automatically manage and update various device profiles 1016, and may typically provide an appropriate device profile 1016 to event server 138 during a login procedure to thereby permit
30 event server 138 to optimally provide various services to the user device 114.

In the FIG. 10 embodiment, network profile(s) 1020 may include one or more sets of information regarding the configuration and functional

capabilities of an electronic network system used by a system user. For example, a network profile 1020 may include communication protocols, hardware and software configurations, memory types and capacities, and data transfer speeds and formats for an electronic home network used by a system user. User device 114 or other appropriate entity may automatically manage and update a network profile 1024. User device 114 may typically provide a network profile 1020 to event server 138 whenever appropriate to thereby permit event server 138 to optimally provide various services to the user device 114 and the electronic network system.

In the FIG.10 embodiment, personality profile(s) 1024 may include one or more sets of information regarding various selectable personal traits, interests, or other attributes of a system user of user device 114. A system user may utilize profile module 324 of user device 114 to create and edit a personality profile 1024 that is directed towards a particular user community or event location, as discussed above in conjunction with FIGS. 3 and 6. In accordance with the present invention, personality profiles 1024 may include any desired type of authentic or non-authentic information. A system user may thus create and store personality profiles 1024 that each correspond with a different user interest, user mood, or intended use of user device 114.

For example, a system user may create a personality profile 1024 that identifies the system user as being interested in events at a particular event location. At an appropriate time, user device 114 may transmit the personality profile 1024 to event server 138 to thereby identify the system user of the corresponding user device 114 as a member of the user community related to the particular event location. Community manager 632 of event server 138 may then provide various types of community-related services to the user device 114. For example, community manager 632 may allow user device 114 to access and utilize a community database 634 (FIG. 6). Having profiles 412 saved locally on a user device 114 may advantageously allow a simplified registration to multiple similarly-oriented event servers 138.

In the FIG.10 embodiment, character profile(s) 1028 may include one or more sets of information regarding various selectable identification information of a system user of user device 114. In accordance with the present invention, character profiles 1028 may include any desired type of authentic or non-authentic identification information. For example, character profiles 1028 may include various nicknames or other personal attributes that are intended to represent a particular system user.

A system user may utilize profile module 324 of user device 114 to create and edit a character profile 1028 that is directed towards a particular use of user device 114. For example, a system user may create one or more character profiles 1028 that may then be utilized to identify the system user when user device 114 is utilized to participate in various types of computer gaming that may be supported as a service of event server 138. A system user may thus create and store character profiles 1028 to provide anonymity for the system user of user device 114. At an appropriate time, user device 114 may transmit the character profile 1028 to event server 138 to thereby temporarily identify the system user of the corresponding user device 114.

Referring now to FIG.11, a flowchart of method steps for effectively providing user information from a user device 114 is shown, in accordance with one embodiment of the present invention. The FIG. 11 example is presented for purposes of illustration, and, in alternate embodiments, the present invention may readily utilize various other steps and sequences than those discussed in conjunction with the FIG. 11 embodiment.

In the FIG. 11 embodiment, in step 1112, a system user may preferably utilize a profile creator 812 from a profile module 324 of user device 114 to advantageously create one or more profiles 412, as discussed above in conjunction with foregoing FIG. 10. User device 114 may also preferably store the created profiles 412 locally into device memory 216.

In accordance with the present invention, the system user may also utilize profile creator 812 to subsequently edit or modify any existing profiles 412.

In step 1116, the system user may preferably utilize a login/configuration module 320 of user device 114 to perform a login procedure for gaining restricted access to an event server 138. In the FIG. 11 embodiment, during the foregoing login procedure, user device 114 may preferably provide an appropriate device profile 1016 to event server 138 for identifying various specific configurations and functionalities of user device 114. In certain embodiments, user device 114 may also provide an appropriate network profile 1020 to event server 138, as discussed above in conjunction with FIG. 10. In response, event server 138 may preferably optimize services and content that may be directed towards the particular user device 114.

In step 1120, following the foregoing login procedure, the system user may utilize user device 114 to select an access to a particular service on event server 138. In accordance with the present invention, the particular service may be related to a specified event location or may be directed towards a particular user community, as discussed above in conjunction with FIGS. 3, 6, and 10. In the FIG. 11 embodiment, in step 1124, the system user may then preferably determine whether to submit a user profile 1012, 1024, 1028 from user device 114 to event server 138.

In step 1124, if user device 114 contains no user profiles 1012, 1024, 1028 that are appropriate for the selected service on event server 138, then the FIG. 11 process may return to foregoing step 1120, and the system user may utilize user device 114 to create an appropriate user profile 1012, 1024, 1028, or may alternately select a different service on event server 138.

In foregoing step 1124, the system user may advantageously utilize profile selector 816 to select and send an appropriate user profile 1012, 1024, 1028 to event server 138. If the system user selects and sends an appropriate user profile 1012, 1024, 1028 to event server 138, then in step 1128, the system user may effectively utilize the selected service on event server 138 in conjunction with a related event location or user community.

Alternately, in foregoing step 1124, the system user may create and send a profiles request to event server 138 to request various types of users

information 618 (FIG. 7) including information from profiles 412 of other system users in electronic system 110, as discussed above in conjunction with FIG. 8. Event server 138 may responsively provide the requested users information 618 and other related information from community database 634 to user device 114.

In step 1132, the system user may then advantageously utilize profile analyzer 820 to perform a profile information analysis procedure upon the requested users information 618. The FIG. 11 process may then preferably return to step 1124, where the system user may make an informed decision to select and send an appropriate user profile 1012, 1024, 1028 to event server 138. Alternately, the system user may utilize profile creator 812 to create a new user profile 1012, 1024, 1028, or may edit an existing user profile 1012, 1024, 1028 for transmission to event server 138. In certain embodiments, the foregoing method steps related to selecting a user profile 1012, 1024, 1028 in step 1124 may similarly be applied to selecting and sending other types of profiles 412 to event server 138, as discussed above in conjunction with FIG. 10.

The invention has been explained above with reference to certain embodiments. Other embodiments will be apparent to those skilled in the art in light of this disclosure. For example, the present invention may readily be implemented using configurations and techniques other than those described in the embodiments above. Additionally, the present invention may effectively be used in conjunction with systems other than those described above. Therefore, these and other variations upon the discussed embodiments are intended to be covered by the present invention, which is limited only by the appended claims.